

In re Patent Application of

MELLOT

Serial No. **Not Yet Assigned**

Filed: **Herewith**

a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

a biasing resistor connected between the first and second inputs; and

a signal resistor, through which a current passes, connected between the first and second inputs, the variations of the current corresponding to the signal to be amplified.

6. A circuit according to Claim 5, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

7. A circuit according to Claim 5, further comprising an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

8. An amplifier circuit comprising:

a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

a biasing resistor connected between the first and second inputs; and

a signal resistor connected between the first and second inputs and in parallel to the biasing resistor.

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9. An amplifier circuit according to Claim 8, wherein the variations of a current passing through the signal resistor correspond to the signal to be amplified.

10. An amplifier circuit according to Claim 8, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

11. An amplifier circuit according to Claim 8, further comprising an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

12. A microphone comprising:
a signal output; and
an output signal amplifying circuit for amplifying a microphone output signal from the signal output and comprising
a differential amplifier having a first input for receiving a reference voltage and second input connected to the signal output,
a biasing resistor connected between the first and second inputs, and
a signal resistor connected between the first and second inputs and in parallel to the biasing resistor.

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13. A microphone according to Claim 12, wherein the variations of a current passing through the signal resistor correspond to the microphone output signal.

14. A microphone according to Claim 12, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of the microphone.

15. A microphone according to Claim 12, wherein output signal amplifying circuit further comprises an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

16. A method of amplifying an output signal from an electret microphone, the output signal being represented by variations in a current passing through a pull-up resistor for initializing the operating state of the microphone, the method comprising the steps of:

connecting a first terminal of the pull-up resistor to an output of the microphone;

connecting a second terminal of the pull-up resistor to a first input of a differential amplifier; and

connecting the first terminal of the pull-up resistor to a second input of the differential amplifier.

17. A method of making an amplifier circuit comprising the steps of:

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providing a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

connecting a biasing resistor between the first and second inputs; and

connecting a signal resistor between the first and second inputs and in parallel to the biasing resistor.

18. A method according to Claim 17, wherein the variations of a current passing through the signal resistor correspond to the signal to be amplified.

19. A method according to Claim 17, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

20. A method according to Claim 17, further comprising the step of connecting an output of an impedance matching stage to the first input of the differential amplifier, the impedance matching stage having an input for receiving the reference voltage.

REMARKS

It is believed that all of the claims are patentable over the prior art. Accordingly, after the Examiner completes a thorough examination and finds the claims patentable, a Notice of Allowance is respectfully requested in due course.